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# THE ENGINEER STUDIES CENTER GUIDE TO RESEARCH AND DATA COLLECTION



Prepared by
Engineer Studies Center
US Army Corps of Engineers

**NOVEMBER 1987** 



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THE ESC GUIDE TO RESEARCH AND DATA COLLECTION



Prepared by Engineer Studies Center US Army Corps of Engineers

November 1987

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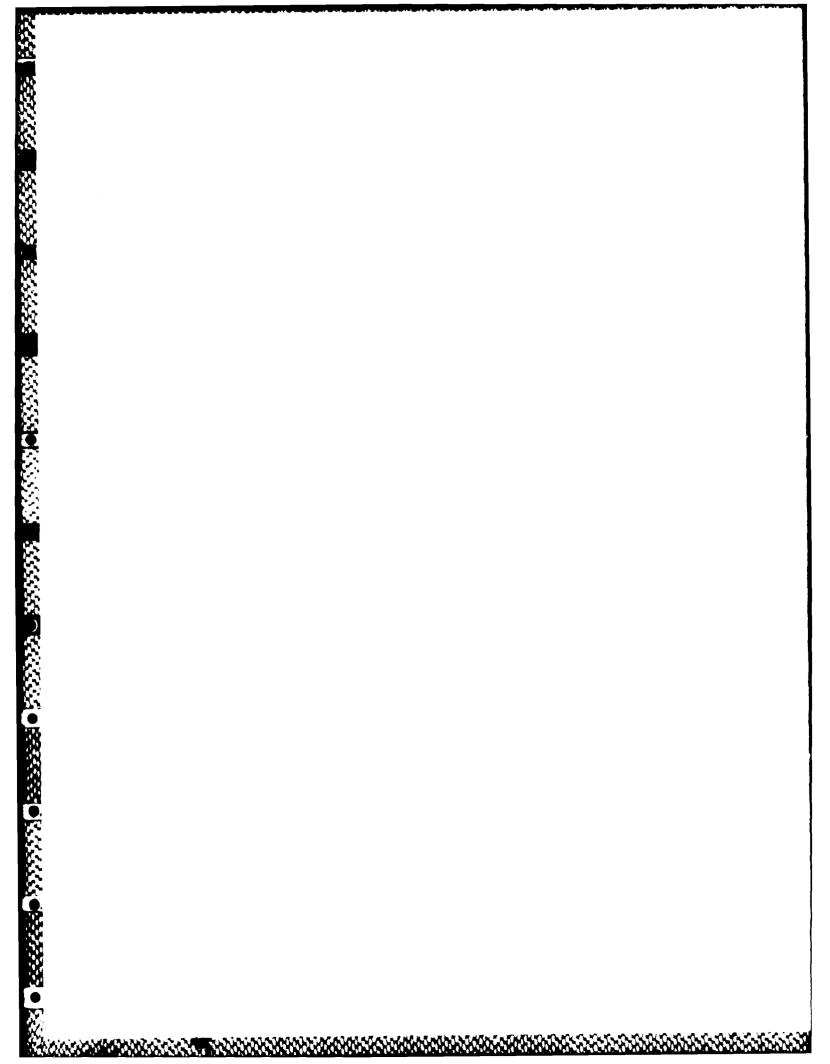
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### LIST OF ACRONYMS AND ABBREVIATIONS

AR. . . . . . . . . . . . . Army Regulation AMC. . . . . . . . Army Material Command BRDEC . . . . . . . Belvoir Research and Development Center CAC. . . . . . . . . US Army TRADOC Combined Arms Center CAPCES. . . . . . . . . . . . . . . Construction Appropriations Programming Control/Execution System CONUS. . . . . . . . . . . . . . . . Continental United States CORPS. . . . . . . United States Army Corps of Engineers DA. . . . . . . . . . . . Department of the Army DIA. . . . . . . . Defense Intelligence Agency DCD. . . . . . . Directorate of Combat Developments DLSIE. . . . . . . Defense Logistics Studies Information Exchange DMA. . . . . . . Defense Mapping Agency DOD. . . . . . . Department of Defense DOTD. . . . . . . . . Directorate of Training and Doctrine DTIC. . . . . . . . . Defense Technical Information Center ESC. . . . . . . Engineer Studies Center ETL. . . . . . . Engineer Topographic Laboratories FM. . . . . . . . . . . . . Field Manual GEOREF. . . . . . . . . . . . . Geo Reference HEC. . . . . . . . Humphries Engineer Center HECSA. . . . . . . . Humphries Engineer Center Support Activity ID. . . . . . . . . . . . . Identification Card IPR. . . . . . . In-Progress Review LOGCENTER. . . . . . US Army TRADOC Logistics Center LS/2000. . . . Library Service 2000 MIS. . . . . . . . Management Information System NTIS. . . . . . . . . . National Technical Information System OCLC. . . . . . . . Ohio Computer Library Center OCONUS. . . . . . . Outside Continental United States POCs. . . . . . . . . . Points of Contact PCs. . . . . . . Personal Computers R&D. . . . . . . . Research and Development

								Study Advisory Group Subject Matter Expert
TSM. TM TOE.	·	•	 · · ·	•	•	•		Temporary Duty TRADOC System Manager Technical Manual Tables of Organization and Equipment Training and Doctrine Command
USAES	C.						,	United States Army Corps of Engineers United States Army Engineer Studies Center United States Army Engineer School
WESTO	OM	ſ.						United States Army Western Command

#### ESC GUIDE TO RESEARCH AND DATA COLLECTION

### I. INTRODUCTION

- 1. <u>Purpose</u>. This paper provides research and data collection tips and guidelines for US Army studies and analysis. It is intended for use by analysts and military planners at the US Army Engineer Studies Center (ESC). However, the tips provided herein are applicable throughout the US Army study and analysis community.
  - 2. Scope. This paper provides:
    - a. Background on the ESC study process.
    - b. Focus on the research phase of the ESC study process.
    - c. Ten tips for better research and data collection.
    - d. Several observations on the research collection process.
    - e. An annex listing selected libraries used often by ESC analysts.

### 3. Background.

- a. ESC. The ESC is a study and analysis agency assigned to the US Army Corps of Engineers (USACE). ESC reports directly to the Deputy Commander, USACE, and is dedicated to meeting the technical and managerial challenges facing the Corps of Engineers, the US Army, and the Department of Defense (DOD). ESC's mission is to help solve engineer or engineer-related problems that are components of larger, defense-wide problems.
- b. This report. The guidelines provided herein have been prepared to help newly arrived analysts make a quick and efficient adjustment to ESC's data research and collection style. A secondary objective is to provide some useful experience sharing for current ESC analysts. Looking ahead, this guide may also be of benefit to the broad community of study analysts outside of ESC.

c. Information sources. This report is based on the experiences of ESC's analytical staff which has conducted many types of studies covering a wide spectrum of topics. Specifically, the lessons learned by military planners, engineers, and operations and research analysts (both military and civilian) have been evaluated and synthesized. The intent is to provide a few useful tips which will help analysts avoid some of the common pitfalls of research and data collection. The tips presented are broad based, and are designed to give analysts a running start at the beginning of an assigned project.

### 4. Assumptions, Limitations and Their Significance.

- a. ASSUMPTION. It is assumed that the user of this document has some basic knowledge of a report or study process and its intent. SIGNIFI-CANCE: Personnel not familiar with the studies and analysis production process may find it useful to perform some additional background reading.
- b. ASSUMPTION. This report assumes that study project planning and scheduling have provided sufficient time for suitable topical research. SIG-NIFICANCE: Quick report completion deadlines may compromise proper research and data collection.
- c. LIMITATION. This report is meant as an introduction to military study research and data collection. SIGNIFICANCE: This report does not tell the analyst where to find all the information, but where to start the search and discovery process.
- 5. <u>Definitions</u>. The following definitions provide terminology clarification for the reader.
- a. Research. Webster's New Collegiate Dictionary defines research as a careful or diligent search.

b. Data collection. Webster's also defines data collection as the collection of factual information used as a basis for reasoning, discussion or calculation.

### II. DISCUSSION

6. Overview of the ESC Study Preparation Process. The process of preparing and publishing an ESC study report consists of many steps and phases. Figure 1 is a simplified conceptualization of the ESC study process.

## **ESC STUDY PROCESS**

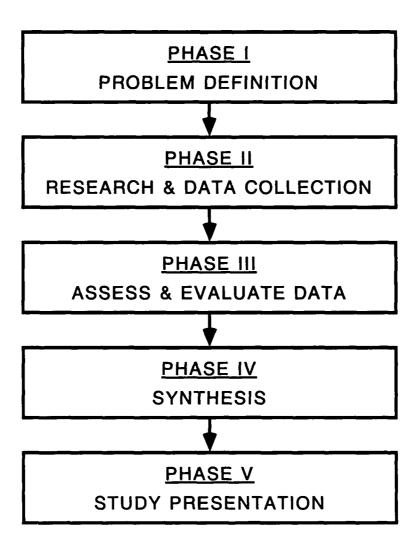


Figure 1

- a. Phase I. Problem definition is the first phase. At ESC, the study sponsor often defines the problem. On other occasions, it is ESC's job to redefine and rescope the problem. It is normally toward the latter part of the problem-definition phase that the project manager considers research and data collection issues. At this point, the study begins to transition from the problem-definition phase to the research and data collection phase.
- b. Phase II. This report focuses on the second phase of research and data collection. More specifically, the focus is on the start of the research and data collection phase. Additionally, this paper gives some guidelines on how to do this task more efficiently and quickly. The research and data collection phase generally transitions rather smoothly into the analysis phase.
- c. Phase III. Once the data are collected and organized, ESC analysts are able to assess the aggregated information and to evaluate its significance. This is the aspect of ESC operations which most analysts associate with the studies process.
- d. Phase IV. Depending on the nature of the project, the analysis phase may be followed by a synthesis phase. ESC analysts often are tasked with evaluating optional actions and/or policies, and providing recommendations for the decision maker's consideration.
- e. Phase V. The final phase is always the presentation. Presentation is usually in the form of a written report that documents the study process. It also is often in the form of a briefing to the study sponsor and/or appropriate decision maker. Whereas the written document may discuss some of the research and data collection issues and details, the briefing seldom will address these points.

- f. This report, therefore, covers an aspect of the study process that receives relatively little attention. This report does not pretend to list all relevant research and data collection tips. Rather, it strives to share some of the more useful ones. Recognizing the changing nature of the studies and analysis community, this report is intended to be dynamic and undergo periodic revisions. Revisions and additions will be added in the future to reflect other insights into the process of data collection and research.
- 7. Ten Tips for Better Research and Data Collection. Efficient analysis can only proceed when the job of research and data collection is complete. With that in mind, the focus of this report becomes how to get the analyst off on the right foot and on the road to finding the information he or she requires. Presented in Figure 2 are 10 tips which ESC believes will help to find that information more efficiently and quickly. The intent is not to disclose all information sources, but where to begin the search and discovery process. As simple and apparent as these tips may be, these basics are often overlooked.

### 8. Tip #1--Collect Organization and Operations Charts.

a. Most military organizations and departments, as well as defense agencies, publish organization charts. These organization charts provide the researcher with the key to unlock vast amounts of information. An organization chart allows the analyst or researcher to see the interrelationships between various internal branches and divisions of a major organization. They also give a clue to the size and mission of an organization. Most organization charts also give names and telephone numbers which are useful in contacting

# TEN TIPS FOR BETTER RESEARCH & DATA COLLECTION

- Collect Organization and Operations Charts.
- Acquire Points of Contact (POC).
- Coordinate and Start at the Top.
- Use Libraries, Lobby Groups, Automated Retrieval Systems, and the Army Publication System.
- Exploit TRADOC (school and laboratory) Assets.
- Get to the Field.
- Acquire a Visual Picture.
- Organize Your Efforts.
- Ask for Help.
- Learn to be a Subject Matter Expert (SME).

various personnel throughout that agency. For example, during a recent projecter ESC was looking for information on the office responsible for topographic tasks in the Pacific theater. A United States Army Western Command (WESTCOM) organization chart provided information on the staff branches, divisions, and personnel responsible for the mission of Army topography in the Pacific as well as specific units assigned to WESTCOM for topographic production.

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b. Official personnel locators or telephone books are similar in nature and purpose to the organization chart. They provide valuable names, telephone numbers, and often an organizational breakdown. Even old telephone books are helpful, and can often be acquired more easily than the new ones which may be in short supply. For example, the DOD telephone book is an excellent information source. It gives individual names and their telephone numbers, organizational names and their telephone numbers, as well as operator assistance numbers for out-of-state military installations, time-zone charts, area codes, etc. Telephone books from other military installations often contain similar information, but on a more detailed level. A map of the military installation can also be found in the back of most military installation telephone books.

### 9. Tip #2--Acquire Points of Contact (POC).

a. POCs are the analyst's right hand. There is no substitute for someone who knows the ropes. During projects that incur travel and temporary duty (TDY), particularly in Outside Continental United States (OCONUS) areas, access and travel is facilitated most by a person who knows the country, personnel, and the organizations. Not only can POCs be directly helpful, but they can guide you to others who may know more than they do. Remember, be sure

to get the correct name, address, and telephone number. Take complete conversation notes and record them - it pays off in the end.

b. Study Advisory Group (SAG) is often appointed at the beginning of a study effort to guide and direct the study effort. The SAG is composed of personnel affiliated with, or within the command or agency being studied, who have an interest in the study's findings and recommendations. The SAG is a key to obtaining support and information. In the early project stages, SAG representatives are advised of the study's purpose, and will have responsibilities for helping guide the study's research. Thus, there is mutual benefit in maintaining good ESC-SAG contact and rapport. In essence, the SAG members are your key POCs.

### 10. Tip #3--Coordinate and Start at the Top.

- a. National-level agencies and headquarters formulate policies from which programs and subsequent organizations operate. These national-level agencies often contain the project coordinator, project manager, or subject matter experts (SME) responsible for the program or information in which you are interested. Additionally, that officer or manager at the top may just be the same person or operator who has years of operational experience from the field just waiting to help out. Therefore, a short courtesy call, or a simple deskside information brief will often open doors.
- b. Take the time to prepare your thoughts and questions when speaking (either telephonically or in person) to personnel at high-level agencies. Effective first impressions can be crucial to getting the information you need. Your objective is to get information and assistance as efficiently as possible. Remember, first impressions are lasting impressions, and will shape ESC's reputation over the years to come.

- 11. <u>Tip #4--Use Libraries</u>, <u>Lobby Groups</u>, <u>Automated Retrieval Systems</u>, and the Army Publications System.
- a. Visits to libraries are essential. ESC personnel are fortunate to be located in an area that is rich in libraries and data repositories. The resources available are sometimes overwhelming. Libraries offer access to experienced researchers, automated retrieval systems, and the holdings themselves. Where else can a 25-minute drive place an analyst on the doorstep of the Library of Congress, the Pentagon Library, and many other specialized technical libraries. Analysts who are not located in large urban areas that have extensive Federal data repositories, will have to rely on the nearest branch library. In this age of electronic information, articles, books, and abstracts are just a short step away. Automated retrieval systems, and interlibrary loads can compensate for local information shortages.
- b. We live in an age of special interests. This specialization creates supporting services that are of tremendous help. Worth noting is the growth of lobbyist, special interest groups, international and foreign associations, and independent study agencies (i.e., Rand Corporation) which have libraries and personnel focusing on similar subject areas. Even within the military departments, specialization abounds. Searching for information on specialized topics such as engineering or military engineering can be aided by using libraries close at hand. For example, a recent task was to find information on the availability of combat construction materials. The resources available at the Pentagon Library, Headquarters, USACE Library (Pulaski Building), the US Army Engineer School Library (Thayer Building), and the Defense Logistics Agency Library (Cameron Station) were used to obtain the information required. Not only are the specialized holdings of these libraries available

for use, but librarians at USACE laboratories can be helpful when requesting a particular report or topic. For more information on special interest libraries see annex to this report.

- c. Automated retrieval systems are one of the most helpful new services. These services provide access to a vast amount of information. The Humphries Engineer Center Support Activity (HECSA) Library is the servicing library for ESC, and has several automated data retrieval services available for use.
- (1) The HECSA Library staff can search for subjects, authors, and titles, and obtain interlibrary loans through the Online Computer Library Center (OCLC). Government data bases such as the Defense Technical Information Center (DTIC) can also be queried using the HECSA Library. Access to other commercial data bases such as DIALOGUE provides periodical listings and access to other specialized data bases. For example, documents pertaining to tunnel detection were needed as background information for a recent study effort. A DIALOGUE search was initiated with returned entries from a pubsequent Geo Reference (GEOREF), and National Technical Information System (NTIS) data base. GEOREF provides comprehensive access to more than 4,500 international journals, books, conference papers, government publications, dissertations, theses, and maps concerned with all aspects of geology, geophysics, and other physical sciences. The NTIS data base consists of government-sponsored research, development, and analysis prepared by the Federal government.
- (2) The Library System/2000 (LS/2000) system is a commercially available retrieval system currently being installed within USACE. This system is intended to provide USACE employees access to reports and holdings throughout the USACE command. It is designed to provide easier Corps-wide

bibliographic retrieval in support of Corps-information needs for books, journals, and technical reports. The ESC library committee is working to obtain a terminal for installation at ESC.

- (3) ESC analysts can directly call Defense Logistics Studies Information Exchange (DLSIE) at Fort Lee, VA for a computer printout of holdings. DLSIE services can provide bibliographic searches for keywords, a particular report title, an author's name, or provide a copy of the report.
- (4) Time-sharing data bases are also available to ESC analysts. For example, ESC recently tapped into the Construction Appropriations Programming Control and Execution System (CAPCES) during the division- and brigadestationing study. CAPCES is a limited access data base which provides tables of organization and equipment (TOE) and facility resource data. Analysts should be careful to check the cost and payment implications of time-sharing data bases before arranging such hook-up. Decisions requiring allocation of funds need to be funneled through the appropriate internal chain of command, and need to be coordinated with the proper administrative personnel.
- d. Familiarize yourself with the Army publications system. The Department of the Army's (DA) "Consolidated Index of Army Publications and Blank Forms" (DA Pamphlet (PAM) 25-30) is the military analyst's map to Army publications. DA PAM 25-30 lists all pertinent DA letters, regulations, memorandums, publications, manuals, and forms. In addition to listing DA publications, it also provides information on joint service publications, and Department of Defense publications. ESC can directly order DA and DIA publications using assigned accounts.
- 12. <u>Tip #5--Exploit Army Training and Doctrine Command's (TRADOC)</u>
  (school and library) Assets. There are many assets in TRADOC and the Army

Material Command (AMC) that can provide the answer to your problem. Here are five pointers to remember when looking for the appropriate proponent school, laboratory or agency responsible for a DA system or program.

- a. Check with the Directorate of Training and Doctrine (DOTD).

  TRADOC schools are responsible for writing the manuals and instructing how current systems should be employed. Each major US Army military branch has a school responsible for instruction and formulation of written doctrine. These schools most likely have personnel familiar with your particular problem or an SME. For example, a call to the Publications Division, DOTD, USAES can provide the latest field manual publication or doctrine on a variety of topics.
- b. Check with the school Combat and Developments Directorate. When searching for information on the origins and future of a topic, concept, or problem look toward the responsible TRADOC proponent or school. For example, in the Engineer school, the Directorate of Combat Developments (DCD), is the place to check for information on the next counterobstacle vehicle.
- c. Check with the Force Integration Centers. The use and integration of engineers into the combined-arms teams is one of the missions of the Combined Arms Center (CAC). This center provides valuable information on how engineers will be used with other forces on the battlefield. Another forces integration center is the US Army TRADOC Logistics Center (LOGCENTER) located at Fort Lee (only an hour away from ESC). This center provides information on how various supply items will be integrated into Army forces.
- d. Check with the TRADOC System Manager (TSM). If the system or concept developed under the auspices of DCD is a major end item, then a TRADOC system manager may be appointed. This person is responsible for the management of major developmental items and systems, assuming that concept development and

funding continue. The progress of a particular system can be traced through the entire planning, programming, budgeting, and execution system (PPBS) via the TSM. For example, the Army's TSM for Mine Warfare systems is co-located at the Engineer School. This person is an excellent place to start to obtain the most up-to-date and current development of mine and countermine warfare systems.

e. Check with AMC and USACE Research and Development (R&D) laboratories. Although not a TRADOC asset, R&D laboratories play a major role in the development of many land-combat systems. These labs are a valuable source of reports and documentation. Once again, ESC is fortunate to be located near several R&D laboratories. The Belvoir Research and Development Center (BRDEC), the US Army Engineer Topographic Laboratories (ETL), and Headquarters AMC are all located within a 15-minute drive. Well drilling has been a major engineer issue recently due to the emphasis on desert operations, and the role that water will play. The fuel and water supply division located in the BRDEC, which is an AMC laboratory, has been instrumental in developing a new, more portable well drilling rig.

### 13. Tip #6--Get to the Field.

a. Personnel located in the actual theater of operations, be it overseas, or located here in the Continental United States (CONUS) are extremely knowledgeable. Contacting field personnel establishes a perspective not gained by sitting in the office. These personnel also act as pointers or guides to the appropriate SME. For instance, engineer well drillers are continually out in the field training and drilling. Both the civilian and military well drilling assets of USACE have experiences from which we can benefit.

They maintain a perspective and actual "hands on experience" that the personnel back at headquarters or the home office do not have.

b. Prepare your field questionnaire ahead of time. The study team should prepare a comprehensive question list prior to any initial field trips. Each analyst should prepare a list of questions which are needed for his/her portion of the study effort, compare it to others for consolidation, and scrub the list for use in the field. The list will save time and help to identify any information gaps which need to be explored. It is often possible to send this list of questions to the field in advance. This way, the answers or appropriate POCs may be waiting when you arrive.

### 14. <u>Tip #7--Acquire a Visual Picture</u>.

- a. Maps, charts, imagery, atlases, gazetteers (collections of place names), and geographic dictionaries give you the answer to just about any question that beings with the word "where". Maps (topographic or planimetric) give the analyst a visual representation of the geographic area in question. It enables him/her to visualize the lay of the land. Charts are the hydrographic equivalent which give an accurate picture of the land-sea interface. Aerial photography, when available, gives an actual picture of the area of interest. Atlases, collections of maps, and gazetteers, are invaluable research aids. The Webster's New Geographic Dictionary is a related publication that combines an atlas and gazetteer on a limited scale.
- b. ESC maintains a small map library. This library, located in the rear map conference room, contains maps that have been used in previous studies, map indexes, and maps covering high-use areas such as Korea, Europe, and the Middle East. If a map cannot be found there, the Terrain Analysis Center located in the Cude Building (here on the HECSA complex) has a good

collection of maps, terrain studies, and hydrographic data that can be obtained on loan. Another place where maps can be obtained quickly is the Defense Mapping Agency (DMA). DMA maintains a map supply in room BG720 of the Pentagon Map Annex which is not far from ESC. Your Pentagon Identification Card (ID) card is required to obtain the maps. If the desired maps are not available at the Pentagon Map Annex, ESC maintains a DMA account. The specific map or chart that you desire can be ordered for retention form DMA's Philadelphia Map Depot.

### 15. <u>Tip #8--Organize Your Efforts</u>.

- particular research problem, it is both helpful and convenient to start a basic project reference library of books and basic research aids that deal specifically with the project topic. This gives the analyst a handy and quick reference to the subject matter. Often, much to our dismay, analysts are assigned problems or topics they know little about. A deskside reference library provides a handy means to answer recurring questions. It eventually grows into a more developed reference collection that is useful to other analysts and can be transformed into a SME library (discussed in paragraph 17 at the end of this section). This library is separate from your basic deskside library which contains style manuals, dictionaries, a thesaurus, and other basic reference aides.
- b. Organize your files. Take the time to label your files carefully so that everything has a place and you can find it quickly. Maintain files for POCs, bibliographies, messages, minutes from meetings, interviews, and in-progress reviews (IPRs). Remember to date your files so that you have an idea when the interview or conversation occurred. With the arrival of

personal computers at ESC, maintaining these files electronically is quicker and more efficient.

### 16. Tip #9--Ask for Help.

- a. It is very useful to send messages and letters, both written and electronic, to agencies, and field units performing similar work and research. Projects relating to your own may currently be in progress at other agencies and in units both within and outside of the government. The purpose of sending messages is to inform others of your current project undertaking and to ask the addressee if similar work is being performed. The message forms are available at ESC Headquarters (executive secretary). They can be typed by ESC Headquarters from your rough draft and sent out from the Fort Belvoir message center.
- b. We overlook our own internal human resources. The analyst next door or down the hall may have the information that you are searching to find. In fact, they may be an SME on the subject that you are attempting to research. Recently, during a search for information on Soviet engineer equipment, an analyst was complaining to another analyst about the lack of information. Fortunately, an analyst in another room overheard the conversation and happened to have a book that filled the information gap. Not only do we often overlook our human resources, we often overlook our own past publications and sources. Most agencies maintain a small internal reference library; ESC is not any different. The ESC internal reference library contains some publications that were used on previous studies and previously published ESC studies. The ESC library committee is in the process of establishing an automated retrieval system for ESC's central and individual libraries. ESC also has a Management Information System (MIS) that can be helpful. ESC's MIS contains information

on ESC personnel, their background, work experiences, and area of expertise.

Check with the MIS to get a profile of in-house expertise.

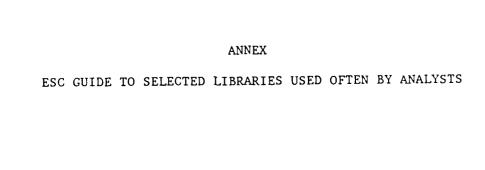
### 17. Tip #10--Learn to be an SME.

- a. Background, education, and experience often combine to make individuals expert on certain subjects. This is true at ESC, and it is encouraged through the individual development plans and personal development time which is allowed daily for each analyst. For example, ESC maintains a diverse library of periodicals ranging from "Jane's Defense Weekly" to the "Engineer Magazine." Each analyst should read periodicals of interest and those periodicals that pertain to their area of expertise to ensure currency on the latest developments. If each analyst maintains expertise on a particular topic then ESC will have 32 SMEs.
- b. Maintaining expertise is important. Reading up on a subject is an important part of undertaking a study. Not only the time taken to read about the history of a subject, but also its current trends and future is time well invested. This process is not only valuable for the study at hand, but also for future studies and efforts as well. Publications, reports, and data can be collected over time, and be combined with data collected from a current or past project to form excellent SME libraries.

### III. OBSERVATIONS

- 18. <u>Observations</u>. These observations highlight the essence of ESC's 10 basic tips for better research.
- a. Save time. No matter what the topic or job, a generic set of data collection and research guidelines will help you do the job more efficiently and quickly. These guidelines or tips can be used over and over again for different projects. These activities eventually become second nature or habitual, are an excellent time-management tool, and ensure a thorough search. Time is often saved through economy of effort.
- b. Use people power. You never know who you will meet or what will be found that provides the answers that you need. Often, the same people will be contacted again for information. At that point, you begin to establish a network of contacts, and the information flow becomes a two-way street. People that you meet are your best research resource.
- c. Work smart--automate. The arrival of personal computers (PCs) and automated retrieval systems is a blessing. POCs, bibliographies, notes, documentation of sources, project scheduling, and creation of report outlines and rough drafts, are but a few of the time saving advantages that personal computers offer to the analyst. PCs also allow easy access and updating of files. If you're not a computer person, don't despair. There are many analysts at ESC who are computer whiz kids and are always willing to teach and discuss the best way to use the PCs to your advantage. Automated retrieval systems offer a world of knowledge and information easily obtained. The HECSA Library can get your research started off with just a few key words that describe your topic.

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### ANNEX

### ESC GUIDE TO SELECTED LIBRARIES USED OFTEN BY ANALYSTS

Paragraph					
1	Purpose	1			
2	Scope	1			
3	Background	1			

- 1. <u>Purpose</u>. This annex provides information about useful libraries that ESC analysts have found helpful.
- 2. <u>Scope</u>. This annex lists and categorizes libraries according to their travel time from ESC.
- 3. <u>Background</u>. There are many other useful libraries, and ESC expects this list to be updated and revised. Those categories are (in one-way travel time): 15-minute travel time, 30-minute travel time, 1-hour travel time, and libraries outside the metro area.
  - a. 15-minute travel time.
    - (1) HECSA Library (Kingman Building)
    - (2) ETL Library (Cude Building)
    - (3) TAC Library (Cude Building)
    - (4) Fairfax County Public Library (various locations)
    - (5) Fort Belvoir Post Libraries (various locations)
    - (6) USACE Historical Archives (Kingman Building)
    - (7) Defense Systems Management College (Fort Belvoir)
    - (8) Army Material Command (Eisenhower Avenue)
    - (9) Defense Logistics Agency (Cameron Station)
    - (10) USAES Library (Thayer Hall)

- b. 30-minute travel time.
  - (1) Pentagon Library
  - (2) USACE Headquarters (downtown)
  - (3) Library of Congress (downtown)
  - (4) Defense Intelligence Agency (Bolling Air Force Base)
  - (5) US Army Intelligence and Threat Analysis Center (Navy Yard)
  - (6) National Defense University/Industrial College of Armed Forces (Fort McNair)
  - (7) Department of State (downtown)
  - (8) United Nations (downtown)
  - (9) United States Marine Corps (Quantico)
  - (10) National Archives (downtown)
  - (11) Organization of American States (downtown)
  - (12) American Petroleum Institute (downtown)
  - (13) Bureau of Mines (downtown)
- c. l-hour travel time.
  - (1) Central Intelligence Agency (McLean)
  - (2) US Army Concepts and Analysis Agency (Silver Spring)
  - (3) Defense Mapping Agency (Potomac)
  - (4) Area Universities (GWU, GMU, UM, GU)
  - (5) National Security Agency (Fort Meade)
  - (6) Air Force Libraries (Bolling and Andrews Air Force Base)
  - (7) United States Geological Survey (Reston)
  - (8) United States Department of Agriculture (Beltsville)
  - (9) National Oceanic and Atmospheric Administration (Rockville)
  - (10) Bureau of Census (Suitland)

- d. Out of the Area.
  - (1) US Army Combined Arms Center (Ft Leavenworth)
  - (2) US Naval Weapons Support Center (China Lake, CA, and Dahlgren, VA)
  - (3) US Army War College (Carlisle Barracks, PA)

LAST PAGE OF ANNEX

C/LME